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STAGE SKILLS · STUDIO SMARTS

Salvador Santana
Rock, Rap, and the Power of Music

5 Ways to Play Like Elton John

Dukey Treats: Learn to Solo Like George Duke

REVIEWS

Roli Seaboard Rise

Roland Boutique

Pittsburgh Modular System-10.1

Rob Thomas

Crafting the Perfect Pop Masterpiece

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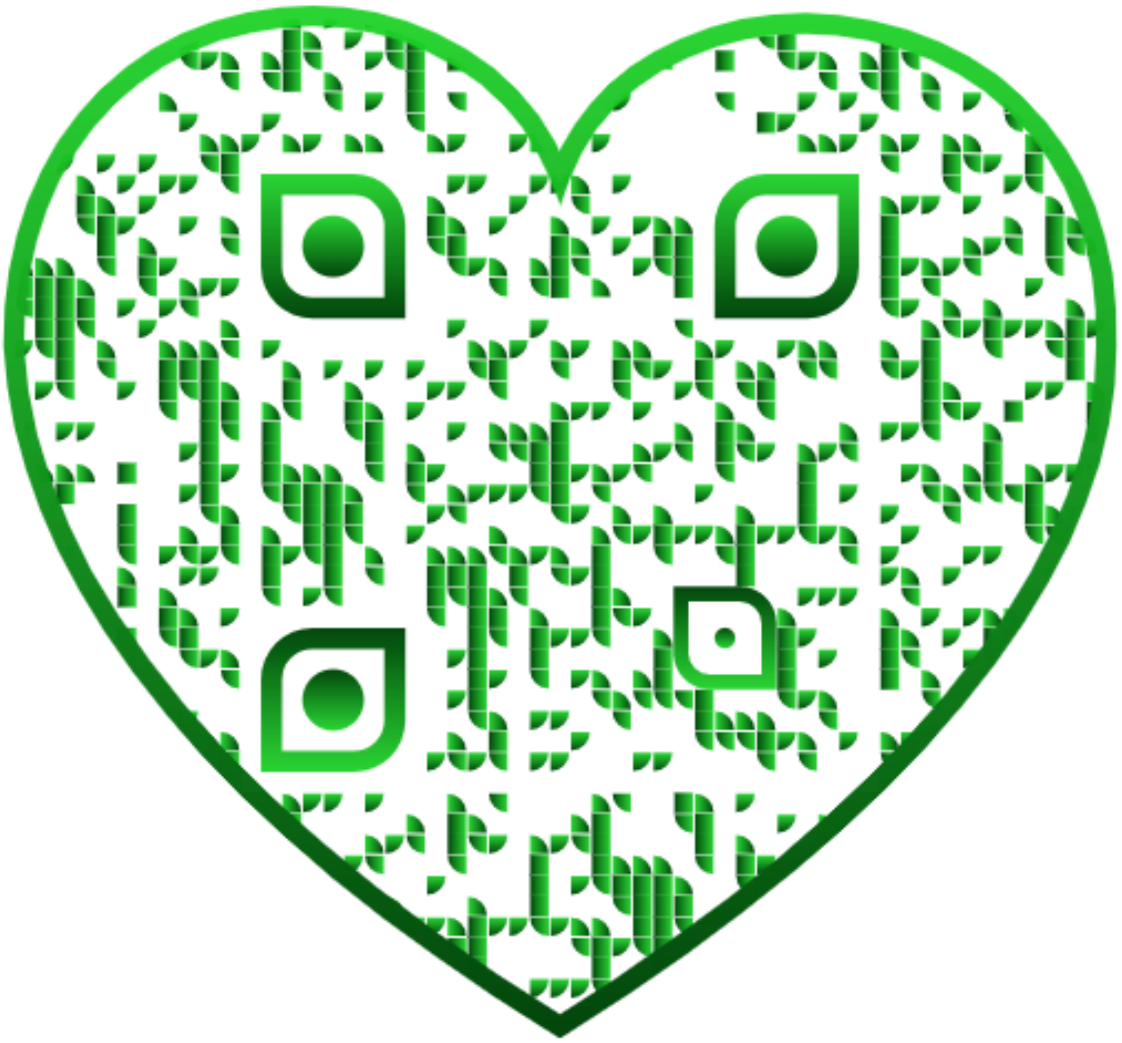

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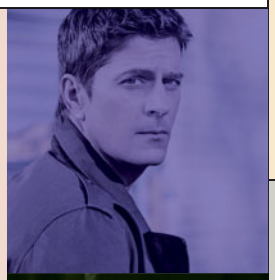

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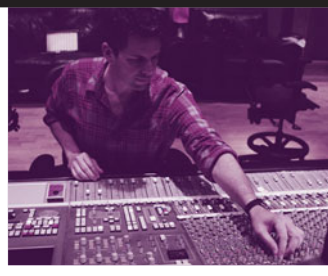

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Remembering the great New Orleans pianist/composer/arranger/producer **Allen Toussaint**.

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COVER PHOTO: BENN WATTS

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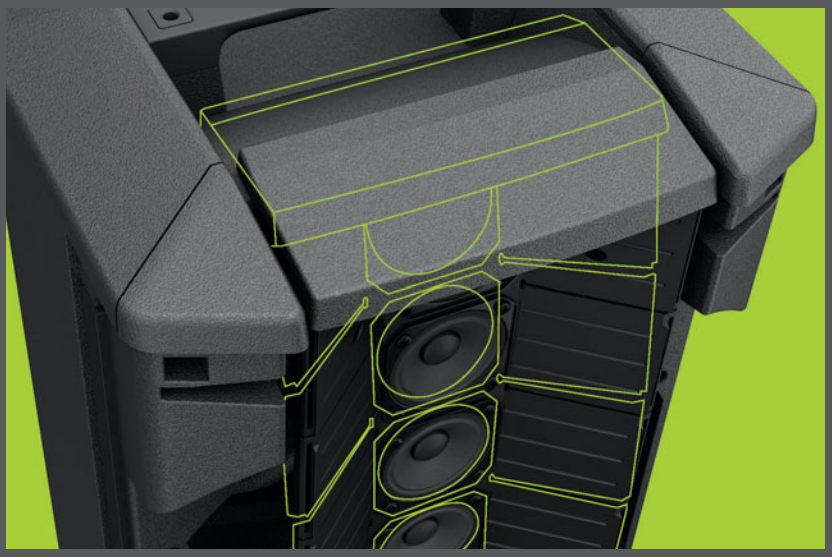

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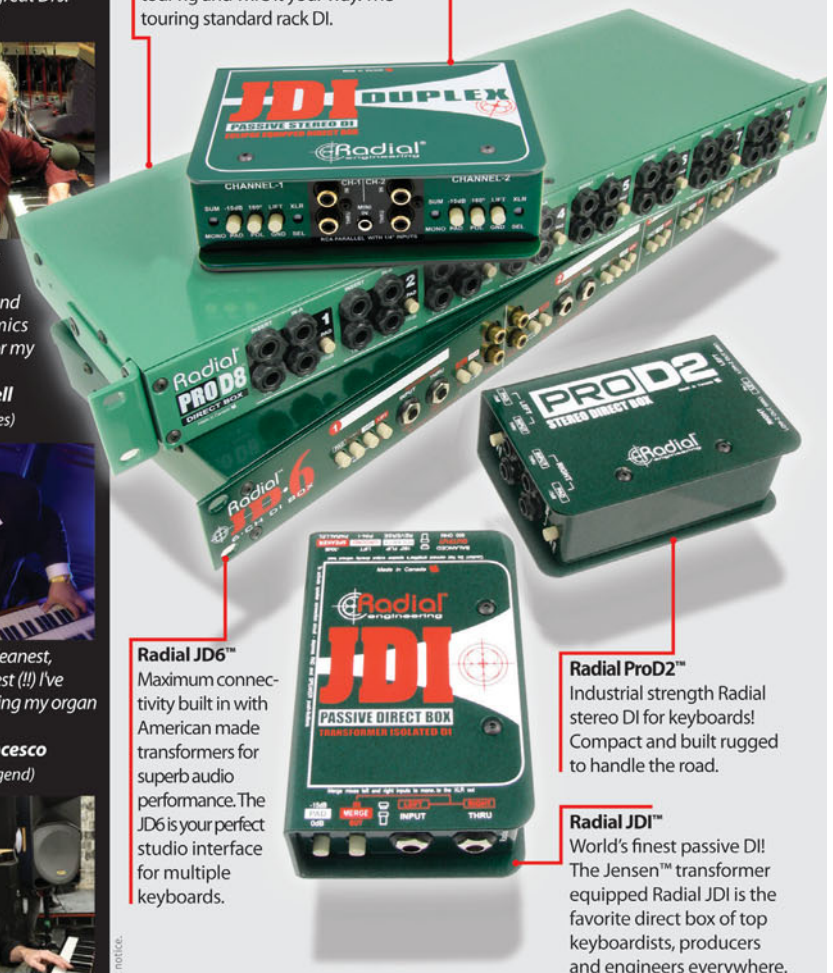

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Editor's Note

Most of us would agree that it's not the instrument that is important, but what we do with it. Yet it is so easy to get caught up in gear lust: With each exciting new product announcement, our Want List grows. For some, it's about iOS apps, while others fetishize Eurorack modules or mini-keyboard synths and controllers. But all of this noise can distract us from what we really want to do—make music. Or, to be more precise, finish projects, rather than simply starting new ones based on the flavor-of-the-month.

Of course, the creative side of our brain reminds us that each instrument has a special quality that can be uniquely inspiring. And it's also worth remembering that the process is as important, if not more so, than the final result. Sure, work must get done, whether it's a new album release or a stage setup that makes gigging easier. But musicianship, which most of us hope to improve, is fostered over a lifetime.

I was reminded of this as I read Rob Thomas's interview for the first time. He and his producer, Matt Serletic, have access to any instrument they want, yet they keep things in perspective—the craft of songwriting and the impact of the work are paramount. The gear is simply there to serve their creativity.

Let the keyboards and synths you find inspiring do their job, but keep the final focus on the music. Spend enough time on each instrument to learn the deeper functionality, then put them to creative use rather than moving quickly on to the Next Big Thing.

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Gino Robair
Editor in Chief

+ 40 YEARS AGO TODAY

Just over a year ago, the great **Horace Silver** left the planet, but not without changing the course of jazz with his uniquely funky and soulful playing. Continuing our 40th birthday celebration, we look back at *Contemporary Keyboard*'s third issue (January/February 1976), which featured interviews with Silver, classical virtuoso **Vladimir Horowitz**, jazz pianist **Marian McPartland**, rock-piano originator **Nicky Hopkins**, and synth innovator **Roger Powell**.

In "Horace Silver: Father of Funk," author Len Lyons teased a great story out of the keyboardist (who also played saxophone) by asking him how the directness of his approach related to the complexities of bebop.

"I've found in composing that being simple and profound—having in-depthness in your music—is the most difficult thing to do. Anybody can write a whole lot of notes, which may or may not say something. Bebop was a good example. From what I've heard, the way bebop got started was in small dives where guys would bug the musicians to let them sit in. The musicians were trying to keep these sad musicians off the stand, so guys like Dizzy or Bird or Monk started writing these complicated lines, so nobody else could play them. That way, these sad musicians couldn't be dragging the session. But why make it complicated for the musicians to play? Why make it difficult for the listeners to hear? The hardest thing is to make it simple. What separates the men from the boys is whether your simple lines have profundity in them—whether there's longevity there, or whether they're trite."

Key Secrets All You Need Is Hub

To celebrate my 50th Key Secrets column, here's one of my favorite tips; using a powered USB hub to connect multiple MIDI controllers to an iPad. In the photo, a Korg nanoPAD2 is playing Drums XD on MIDI channel 1, a CME Xkey is playing Photophore strings on channel 2, and a Keith McMillen QuNexus is playing Propellerhead Thor bass on channel 3. Each controller is optimized for the sound it's playing. (Turn on Background Audio in your apps to enable simultaneous control.) A Monoprice USB battery pack powers the hub, allowing it to run an old Edirol UA-20 audio interface as well ($15 on eBay), adding stereo I/O plus a dedicated headphone jack. David Battino

ALLEN TOUSSAINT, 1938-2015

As this issue went to press, we were sad to learn that Allen Toussaint had passed away. Toussaint's long career was an inspiration on so many levels: A magnificent pianist, arranger, producer, and singer—and quite the snappy dresser—Toussaint had a hand in hundreds of unforgettable recordings by artists from his native New Orleans, and beyond. We respectfully offer our Listening List, featuring just a handful of Toussaint's career highlights.

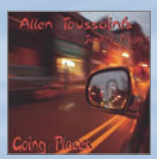
Irma Thomas, "It's Raining" (1962)
Toussaint wrote, arranged, and produced this emotional single by the Soul Queen of New Orleans.

Ernie K-Doe, "A Certain Girl" (1964)
Go back and listen to the piano parts on this Toussaint-penned soul classic.

Lee Dorsey, "Working in the Coal Mine" (1966)
The coolest ever work song—written, produced, and arranged by Toussaint—features funky accompaniment by The Meters. (Also, don't miss Dorsey's recordings of Toussaint's "Holy Cow" and "Sneakin' Sally Through the Alley.")

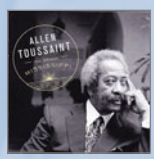
Dr. John, *In the Right Place* (1973)
Again with The Meters backing, Toussaint not only produced and arranged, but also played piano, acoustic guitar, and percussion, and sang background vocals.

Allen Toussaint, "Southern Nights" (1975)
On recent solo tours, Toussaint closed his shows with a sweet version of his most nostalgic song, which was popularized by Glen Campbell. His original version is an awesome, watery meeting of piano artistry and psychedelia.



Allen Toussaint's Jazzity Project *Going Places* (2004)
Toussaint's jazz combo record includes a swinging reinterpretation of the '60s soul ballad he wrote for Irma Thomas "Ruler of My Heart."

Elvis Costello and Allen Toussaint, *The River in Reverse* (2006)
This post-Katrina album features classic Toussaint compositions and new collaborative ones, with these two great artists trading songs and vocal lines.



Allen Toussaint, *The Bright Mississippi* (2009)
Toussaint's second all-jazz album, produced by Joe Henry, has a much more traditional feel than the Jazzity Project, but is no less inspired and inventive.

Allen Toussaint, *Songbook* (2013)
This live album feels even more like a gift now that the artist is gone. It is a beautiful document of Toussaint's late-life tours, showcasing elegant versions of the many hits he wrote for others.

Barbara Schultz

Read our 2006 interview, plus an appreciation of Allen Toussaint's career, and learn "5 Ways to Play Like Allen Toussaint."

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NEW FOR IOS

MOFORTE GEO SHRED

Any keyboardist will tell you, a gestural control interface is only as good as the instrument that follows it. That's why moForte (moforte.com) has collaborated with Jordan Rudess's Wizdom Music to implement his popular isomorphic GUI in the iOS app Geo Shred, a physically modeled virtual guitar and effects package.

From its intuitive note layout, you can utilize up to 6 individual virtual strings in an independent, expressive manner. In addition to realistic control over modeled feedback and distortion, you have the ability to gliss, bend notes, and add modulation and filtering based on finger position and movement.

The preset editor lets you map parameters to notes, buttons, sliders, and the x/y controller, and set up and control a custom chain of modeled effects. The sound is completely generated by the app itself—no samples—and processing resources are remarkably light: During our demo with a late Beta version, less than 45 percent of the iPad's CPU was being used for polyphonic playing of complex guitar-and-effects setups.

Watch for a full review of Geo Shred in an upcoming of issue of *Keyboard* magazine.

NEW GEAR

BY GINO ROBAIR

KORG VOLCA SAMPLE OK GO SPECIAL EDITION

WHAT Limited to 750 units in the U.S.A, this 8-voice polyphonic instrument is packed with 100 samples from the band's *Hungry Ghosts* album. Includes 16-step sequencer, multi-touch keyboard, built-in speaker, MIDI In, Sync I/O, and headphone jack. Runs on batteries or AC. **WHY** Ready to make some great sounding tracks? OK, Go!

$159 | korg.com

WAVES ELEMENT 2.0

WHAT A major update to Waves' polyphonic VST soft synth. The Unison algorithm offers 2- and 4-voice modes. Includes a 16-step sequencer/arpeggiator, reverb and crusher effects, and MIDI Learn. **WHY** Offering increased audio quality thanks to high-res oscillators and improved anti-aliasing technology, it can load patches made in the original version.

$TBA | waves.com

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WHAT Created using real singers, a vocal-based virtual instrument that provides chromatic notes, loops, and sliced phrases. Includes convolution reverb, LFO and step-sequencer modulation, and the ability to smart tag presets. **WHY** A creative set of tools that allows keyboardists to add realistic sounding vocal parts to recording projects and performance setups.

$199 | output.com

UVI FALCON

WHAT A 64-bit hybrid soft-synth and sample playback instrument that works standalone or as a plug-in. In addition to 15 oscillators and 80 effects, it offers IRCAM-created granular playback and time-stretching capabilities, as well as drag-and-drop modulation assignment. **WHY** A powerful virtual instrument that is easy to use, yet allows for custom scripting.

$349 | uvi.net

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ROB THOMAS

BUILDING THE PERFECT POP SONG ON *THE GREAT UNKNOWN*

BY JON REGEN

"IT STILL BOILS DOWN TO THE SAME THREE THINGS FOR ME," ROB THOMAS says via Skype from his tour bus. "The song, the song, and the song. It's all about writing good ones and learning how to write *better* ones." Thomas has staked his career on the power of the pop song. From his success with rock supergroup Matchbox Twenty to hit smashes with Santana ("Smooth") and on his own, the veteran singer/songwriter is continuously on the lookout for a captivating chorus and a heartfelt hook.

With the release of his new solo album *The Great Unknown*, Thomas offers a song cycle that sounds as fresh as it does familiar. Tracks like "Trust You," "Hold on Forever," and "One Shot" burst with unexpected sounds and unabashed grooves. It's Rob Thomas, rebooted. On a tour stop in Florida, Thomas talks about the process of putting together the new set of songs on *The Great Unknown*.

Your last solo album *Cradlesong* came out six years ago. Why the long pause between albums?

Well, it was a pause for my *solo* project, but not for me in general. When I got off the road from the *Cradlesong* tour, I immediately went into the studio to work with Matchbox Twenty to record the album *North*. We made that album and then went on tour with it for almost two years around the world.

In all honesty, I've never really had more than a month off in the last twenty years. [laughs]. I'm always jumping from one thing to another. After we made Matchbox Twenty's first album *Yourself or Someone Like You*, I was out touring and promoting it for almost three years.

After a month or two of being home from that tour, I jumped into recording "Smooth" [Thomas' 1999 smash hit with Carlos Santana] and then that took me into another direction altogether. Then I went back to record *Mad Season* with Matchbox. And things have continued like that ever since.

How do you think the musical landscape has changed since the last time you released an album?

It's obviously a completely different world nowadays. No matter what happens, as you get older, the pop landscape is just going to continue to get younger and younger. There seem to be more teen idols all over the place these days. But when I do my solo shows, the age range seems to go from around nine to 65 years old. So I'm almost out of that realm where I have to worry about whether people think I'm cool or culturally relevant. I just have to be relevant to enough people that they'll still come-out to see me play and allow me to have a career.

Are you always thinking about ideas for your solo albums even while you're working on other projects?

The way it works is I *always* write no matter what I'm doing. So when it's time to put a new project together, I just try to cull together whatever it is that I'm working on at the time and see what works. The funny thing is, a lot of times I'll be writing all year long. At the end I'll have something like 40 songs, and then I'll find two or three that I really like and I'll re-write an entirely new record around them.

There seems to be heavy *rhythmic* component to your new album *The Great Unknown*—from the first downbeat of the song "I Think We'd Feel Good Together," there's a forward motion to the songs – the flow of the lyrics, the rhythmic propulsion of the drums and keyboards. Does it all start with rhythm for you?

Well, my melodies have always been pretty rhythmic. There's an inherent kind of "fast-talking," rapid-fire vibe that's very percussive when I sing, as opposed to long, drawn out melodies. When I started out, I used to play an old Casio MT-68 keyboard, slapping the keys to get a percussive feel out of it. Even when I play guitar, I play it like a percussion instrument to get that slap and backbeat element in there. But this album to me sounds like a continuation of my first solo album *Something to Be*, as if the guy who wrote "Lonely No More" and "This Is How a Heart Breaks" made this record. The next album *Cradlesong* was in many ways a departure from that. As I get older, I'm starting to wonder how many super "poppy" and "dance-y" records I have left in me. So I thought I might as well get one out now while I have the chance!

Another thing to add is that a lot of this album was built from the ground up in my home studio, as opposed to the more traditional style of songwriting. So I would literally sit down, find a beat I liked, add a bass line, and start building tracks before I even had a melody to work on. Or I would be in my backyard and I'd come-up with one little piece of a melody for a chorus, so I'd run into my studio and start building things around that. So in essence, the record was really built from the rhythm up.

When we last visited your studio in 2009, you were using a Korg OASYS and software plugins like Spectrasonics Stylus RMX to form the bed of your songs. Has your home writing rig changed since then?

These days I've gotten more into *programming* my own beats, as opposed to finding pre-programmed

BENN WATTS

rhythms. But the process is almost the same. I sit down with a keyboard and a groove, and I start moving things around. The only difference being now, instead of just sitting down and playing chords on the piano or keyboard, I really dig in and start *building* tracks. In many ways it's much like when someone else gives you a track to write to. I just give *myself* that track and start writing over it. Some things I really like using are FXpansion's BFD2 plug-in, which to me still has the most realistic drums. *[Thomas' BFD2 has since been replaced with BFD3—Eds.]*

And I still use my Korg OASYS, which is just totally amazing. The funny thing is, it does so much that I haven't even delved into, like the on-board sequencer, because I use it with Pro Tools. It's almost like using a computer as a calculator. But I love the OASYS for the heavy, weighted feel of the keys, and I can run it through things like Synthogy Ivory to get great piano sounds, or Spectrasonics Omnisphere to get some great synthetic guitar sounds.

You co-wrote a number of songs on the album with different artists. What does co-writing give you that working alone doesn't?

If you're working with someone good, you're always going to *learn*. It's really interesting to watch someone else's process and see how they get to the finish line. If I sit down to write a song, there may be certain "places" that I'm always going to go, just because of my own personal style. Having someone else there to say, "What about trying this?" where you would never have thought of taking a left turn by using a certain lyric or melody, makes things much more interesting.

How did your collaboration with Ryan Tedder from One Republic on the song "Trust You" come about?

I had the idea that I wanted to write with Ryan. So I kept calling him up, and eventually I flew out to Atlanta while he was on-tour and I hung out with him on his bus and we wrote a song together. He had a little studio setup and we sussed out a raw demo of the tune and the melody. Later, we sent files back and forth between my studio and his, building the track up bit by bit.

There were other interesting collaborations as well. Ricky Reed sent me a track for the song "Absence of Affection." The folks over at my label Atlantic would send things my way for the new album from time to time, and that track was one of them. I also collaborated with Shep Goodman and Aaron Accetta who work with the band American Authors. I was introducing the band at the VH-1 "You Oughtta Know" concert and we realized we lived five minutes away from each other in New York. I went over to their studio and we wrote the song "One Shot" the very same day. That song is another example of how co-writing can change a song's direction. It's something I would never have come up with on my own. And now it's really one of the great live moments in my show.

My producer Matt [Serletic] and I have a rule that we don't consider a song finished until it's recorded. There was a song on my first solo record called "My, My, My" that originally had a completely different melody and lyrics. When I went in to record the song, I didn't like way it felt. So I went into a different room and re-wrote the melody and lyrics. So until I step away from a song and move on to something else, the melody and lyrics aren't finished.

Listening to a tune like "Wind It Up," with its bold drums, synth stabs and R&B-ish dance grooves, it seems like you have an affinity for the sounds and production values of '80s music.

Yeah. My whole journey started as a kid in the south listening to country songwriters like Willie Nelson, Waylon Jennings, Conway Twitty, and Merle Haggard. And then in the '80s, it was all about Euro synth pop for me. I was into bands like New Order and Yaz. Somehow, those two sensibilities came together.

So the new record is akin to Waylon Jennings meets Depeche Mode?

Exactly [laughs]. That's how I should start selling it! But it's true that when I make pop records, it's still like an alternative kid from the eighties making a pop record. This record actually started out even more '80s in the beginning. But we tried to strike a good balance in the presentation between a "retro" vibe and one that is palatable to people listening to music today.

The title track "The Great Unknown" is somewhat haunting and unsettling, with a great melodic line that weaves throughout the whole song.

I wrote that one about my wife Mari and her recent struggles. *[Thomas' wife has had some health scares of late, and recently had brain surgery —Eds.]* "The Great Unknown" was really about her strength and her resilience, and the way she carries herself in the face of adversity.

Originally that one was called "Hold On," but when I played it for Mari, she said, "The title should be 'The Great Unknown,' and you should call the album that as well." I think the title ended-up being more appropriate than either of us had envisioned. It's not only about the challenges you face in life, it's also about how whenever you do something as an artist, you never know what the results are going to be. You can only put your best efforts forward and see what comes out the other side.

MATT SERLETIC

The Producer Talks Tech

"We went through a lot of work in the early stages of the project just putting essential elements of the album together," says producer Matt Serletic. "It's a heavy programming record, and the line between drum, keyboard, and synth tracks became totally blurred. For us, it was all about what made the songs breathe and ultimately come together."

"Gear-wise, I have two setups," Serletic continues. "I have a proper studio with real 'hardware' like my Korg OASYS and other keyboards and gear, and I also work at home a lot off of my laptop for experimental purposes. So I use everything from reFX Nexus and Native Instruments Massive, Kontact, and Komplete, to the Arturia suite of classic keyboards. I like playing around with some of their modular stuff and making percussion loops from synthesizers. But I also go back and forth in my main studio, working with one musician at a time. We'll use old-school keyboards like my Mark II Stage model Rhodes, my Hammond B-3, a Yamaha U3 upright piano, and an old student model Wurlitzer electric piano.

"The sonic palette really started coming together after I did some experimentation with Jason Lader, who played bass and synths on the album. We both brought in just acres of keyboards—from my Moog Minimoog Voyager, to Jason's old Korg MS-20 and his Doepfer analog modular synths, an Alesis Andromeda, a Roland Jupiter-8, a Teenage Engineering OP-1, and many others. I used the same rack of Neve preamps I've had for years; they still sound great on everything. I also do a lot of alchemy with regards to signal processing in the box. Sometimes after processing I can barely recognize what's being played at the keyboard. It just becomes a wash of sonic textures."

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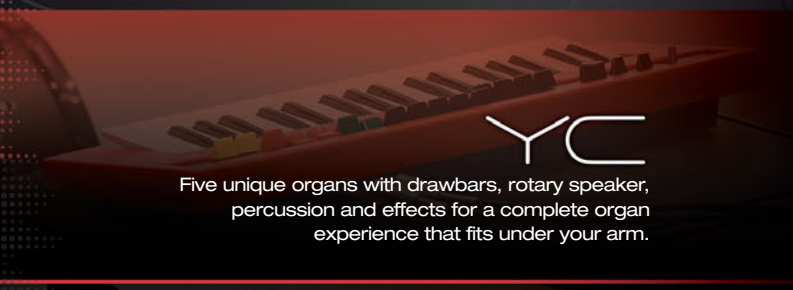

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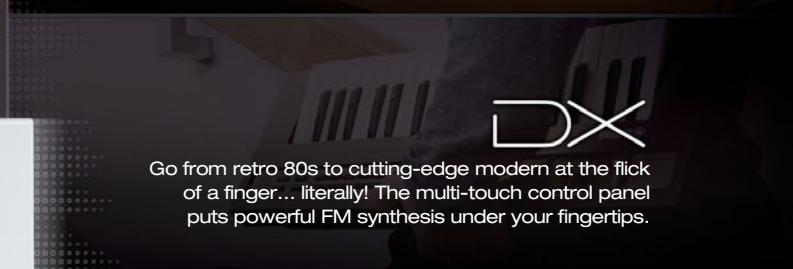

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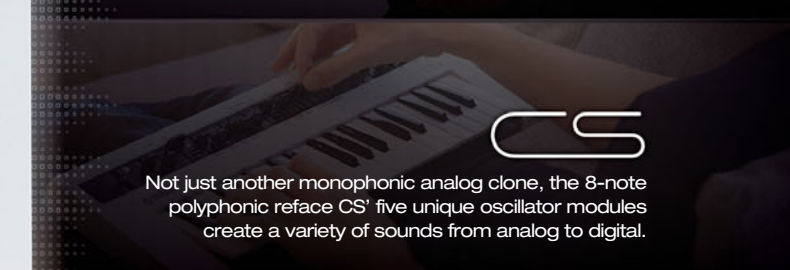

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The song "Paper Dolls" has a mesmerizing intro and a chord progression that seems to wrap itself around the listener. Was the intro where the song began?

That intro set the whole tone of the song. Originally it started as a pure piano song, and I recorded it with me singing all of the lyrics. The idea for it being a duet came late in the game. We started talking about how one thing I had never done on record was a duet. And "Paper Dolls" seemed like it could be a conversation between two people. We had background vocalist Ruth-Anne Cunnigham [aka "Rooty"] sing the lead vocals just as a placeholder at first, but we ended-up liking her so much that we kept her vocals on the track.

In terms of chords, I go back and forth between looking for unexpected progressions and trying not to get in the way of myself by making things complicated. Sometimes a song will tell you what it wants to be. [Guitarist] Paul Doucette from Matchbox Twenty once said, "I just don't think I'm a good enough writer yet to write a three-chord song." And I think that's one of the greatest things I have ever heard. Willie Nelson and Tom Petty have a lot of songs that repeat the same chords over and over again. But the melody and lyrics are so strong that you're not paying attention to what the chords are doing.

The album closes with your song "Pieces." Is there anything more affecting than the simplicity of a voice, a great melody, and a piano?

That one was the last song I wrote for the record. When I played the album for Atlantic Records President Julie Greenwald, she said she thought it was great but she felt it was missing a ballad. I wrote the song on a little keyboard when I was in Mexico with my wife. It was one of those songs that I didn't want to do anything to. I was thinking of Adele's "Someone Like You," with a piano, a vocal, and a little string part. And the reaction to it from fans has been incredible.

What do you use to write songs when you're on tour? Do you have a mobile recording rig?

No. If I'm writing while I'm on the road, it's just about finding a good melody. I'll flesh it out later. So right now, everything comes down to the voice memos on my iPhone. The hard part comes later on when you go through the 60 or so ideas you recorded and realize that most of them are just crap! So if something stands out on my voice recorder, I know it must be special.

You recently replaced your Yamaha Arius YDP-223 with a Roland RD-800 for live performances. Why the change?

Taking the Yamaha in and out of my house just became too much of a hassle, and I love the sound and feel of the Roland. Onstage these days, we're using the Roland RD inside of a white, upright piano shell. At home, my main writing piano is actually my Yamaha baby grand that I keep up in my living room. But it's great having the Yamaha [YDP] spinet back in my studio. Sometimes while I'm building tracks on the OASYS and looking for new sounds, it's great to step away for a minute and move to the Yamaha where I can just play piano and see if I like what I'm writing.

The new album has wide variety of sounds and styles. Sometimes you want to dance, and sometimes you want to look inside yourself.

I feel like within twelve songs, you want a record to be able to be somebody's "Saturday night," and somebody's "Sunday morning." You want it to be something they can go party to, but also something they can cry in their beer over. In some ways, you want a record to be as diverse as your own CD collection. Every song that you write helps build your musical personality, and once you do something, it *is* you. So there's not really a theme to this record, other that it's a time capsule of where my head was at between the last album and this one. ♫

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SALVADOR SANTANA

SPEAKING FROM THE HEART

BY EMIKO CARLIN

DRIVING UP TO WHAT COULD ONLY BE DESCRIBED AS A SOULLESS INDUSTRIAL complex—an edifice with post-Communist bloc-style architecture somewhere in the bowels of North Hollywood—I made my way through a maze of studios and myriad sounds escaping from said studios to sit down with Grammy Award-winning, keyboard playing, rhyming, humanitarian, Vocoder-ing (if that's even a word) star on the rise, Salvador Santana.

The son of guitar icon Carlos Santana and poet/author/activist Deborah Santana, Salvador co-wrote his father's Grammy-winning track "El Farol" on the album *Supernatural* when he was just a teenager. As a solo artist, Salvador Santana has released several solo albums as well. His latest hard-rocking rap release is *Fantasy Reality*.

You incorporate many genres and use real musicians on all of your recordings. Why is using real musicians so important to you?

With the new album I just released, *Fantasy, Reality,* the early stages of the record [included] heavy computer programming—just my buddy Jared Meeker and me. We got together in the studio and would get an idea and plug in a keyboard, find a funky sound and just lay it down. But as the creative process went on, we would realize that certain quirky synth sounds would end up being other things, like a violin, and then I'd get a violinist to come in and he or she would do their thing and it would be perfect.

In your songs, the lyrics come out with rhythm and a lot of emotion. Let's talk about that for a minute.

I'm inspired by hip-hop and rap. Being a lyricist, and growing up in the '90s when hip hop was taking shape and really putting itself on the map with artists like Snoop Dogg, Mos Def, Common, Biggie—there's something really particular about the way they approached the mic that was just so inspiring.

The public doesn't really perceive hip hop artists or rappers as musical, as opposed to someone playing the trumpet, etc. But I think it's just another way of expressing yourself. If you can get past the cursing and some of the negative messages, there is something beautiful in there, and I gravitated to it and I wanted to incorporate it in my music.

If I can inspire someone to look at me and say "Salvador is rapping and playing piano. Hey, I can do that!" then I'm doing more than my job.

Please explain your decision to instill positive messages in your songs.

I'm compelled to do it. There's so much negativity in the world right now. There are so many people who are doing a great job of presenting negativity. I'd much rather go in a different direction: keep it real and show that there are positive ways to end conflict. Don't just present the problem! Let's present the solution. And my job through my music is to showcase the issues in the world. And as long as we are positive and can work together, we can make it through and make a difference.

You had the opportunity to visit South Africa and meet Nelson Mandela. What did you learn from that experience?

My family and I through ANSA [Artists for a New South Africa], had the opportunity to also meet Archbishop Desmond Tutu. The main reason we went was to support ANSA but also to attend the Archbishop's birthday celebration. It was like being in the room with real-life superheroes, and it inspired me to write the song, "Rise Up" which was in the documentary film *School of My Dreams*. Being in South Africa showed me that music is a universal language. Wherever we went, we always heard music.

Music, to me, is one of the most important

things that needs to be in schools. It's a positive outlet and gives kids a way to express themselves. It saved me. Speaking personally, it saved me from getting into trouble. It kept me committed and focused. I chose to further my education with music and really study it. I knew that music was keeping my life on the right track.

Tell us about winning a Grammy for "El Farol": How was it writing the song with your dad, and then winning the award?

It was incredible! I was in high school. The backstory is that "El Farol," which was on *Supernatural* made the record at the very last second—a really last-minute decision. My dad asked me to work out some chords to a melody that he had. Then the phone rang and he said we had to go to my grandparents' house, but he didn't tell me why. We just dropped everything and went. And it was because my grandfather had passed away just then. We ended up playing the song at my grandfather's funeral. That's the memory that I have of the song, even before the Grammy win.

A few years later, someone on my dad's team suggested having an instrumental on his album and suggested that song. It was really sentimental and emotional. We weren't sure about it… but we did it and I'm so grateful we did.

How many keyboards do you own? And what is your go to?

I think I have about ten keyboards. I use three keyboards onstage. My Korg Triton Extreme—I love the sounds on there. I love the weighted keys; it feels like I'm playing a real piano. Another keyboard I like to use is the smaller studio Triton and then last, but not least, I like to use my Roland VP500 Vocoder and switch it up a little bit.

When you go on tour, what software and soft synths do you use?

I've been incorporating [Novation] Launchkey and Launchpad in my live rig. Keyboard here, piano solo over there, grab the mic, the digital stuff—I'm definitely looking like an octopus onstage!

If you were stranded on a desert island and you could only take one keyboard with you, what would it be?

It would have to be the Triton because I've gotten to know it so well over the past few years. I know it's a beast. I know the sounds up and down the entire keyboard. The weighted action is me all day. I trust myself with it.

Everyone knows about Guitar Gods. But let's talk about Keyboard Gods and keyboard heroes! Who are yours?

If I had to make a Mount Rushmore of keyboard players, Herbie Hancock would be number one for me—for who he is as a person and as an artist, he covers all ground. We can add Money Mark. Love me some Money Mark! I got to work with him on my record *Keyboard City*. I grew up with the Beastie Boys. He's just an awesome person and being in the studio with him is like watching a mad scientist go to work. With him, he taught me that it was okay to focus on multiple things in the studio so I was writing three or four songs at a time. Then, Keith Emerson and Denis DeYoung. He's a badass. Both of them—their interpretations of music and their setups are incredible.

What's direction will your music take next?

Well, let's call up a bunch of kids and find out! Seriously. People think that it's us, the adults, that determine the direction of it. But it's not. It's the kids. It's what they want.

In the meantime, I keep doing my thing. I keep incorporating the best of everything that's happening. And growing up in the Bay Area, I had everything right there in front of me. And rather than being overwhelmed by it, I absorbed it all. I'm a little bit of this and a little bit of that, but there's something cohesive that ties it all together. And that's me. ♫

Akiko Tsuruga

THE HAMMOND QUEEN

BY JON REGEN

DUBBED "QUEEN OF THE ORGAN" BY LEGENDARY JAZZ SAXOPHONIST LOU Donaldson, Akiko Tsuruga has made a name for herself with a fierce Hammond command that belies her age. Find out more at akikojazz.com.

HOMETOWN: Osaka, Japan

MUSICAL TRAINING: I started taking Yamaha Electone [organ] lessons when I was three years old. I took lessons with Electone player Shigeo Sekito from age 16 to18, and then I studied classic piano at Osaka Music Collage in Japan. After graduating college, I took jazz piano lessons with Zensho Otsuka. Then I started playing as a jazz pianist around the Osaka area. I also started playing Hammond B-3 organ at that time, but I didn't take lessons; I just transcribed organist Jimmy Smith playing the blues. After I moved to New York, I learned so many things on the bandstand, playing and practicing with great musicians.

FIRST GIGS: I started playing gigs at a jazz club/after hours place in Osaka called Don Shop, located across the street from the Blue Note. I had an opportunity to play tunes with great American musicians like Grady Tate and Dr. Lonnie Smith.

MUSICAL INFLUENCES: Jimmy Smith, Dr. Lonnie Smith, Lou Donaldson, Grady Tate, Brother Jack McDuff, Jimmy McGriff, Larry Young, Charles Earland, Wynton Kelly, Red Garland. And Japanese pop music.

WHAT I'M LISTENING TO RIGHT NOW: The album *If* by Larry Young

INSTRUMENTS PLAYED: Hammond B-3 organ, piano.

MY BIG BREAK: The most life-changing event for me was joining the Lou Donaldson Quartet. We played at Carnegie Hall, various jazz festivals and famous jazz clubs in Europe, Japan, and the United states.

LATEST ALBUM: *Commencement* on AT Records.

FAVORITE KEYBOARD GEAR: Hammond B-3 organ, Hammond Suzuki SK-1 and SK-2 .

WHAT'S NEXT: I'm touring with [drummer] Jeff Hamilton in California next spring and then touring in Japan with my own Quartet. I also started working with Technics on their "High Resolution Audio Systems and Live Jazz Performance" project. I'll go back into the studio to record a new album at some point next year.

ADVICE TO OTHER MUSICIANS: Believe in yourself and keep playing. Music will bring you a lot of happiness. ♫

Akiko Tsuruga plays "Alligator Boogaloo"

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’Round Midnight Revisited

REIMAGINING A JAZZ CLASSIC: PART 2

BY ANDY LAVERNE

LAST MONTH WE EXAMINED THE A SECTION THROUGH THE FIRST ENDING OF MY solo piano arrangement of Thelonious Monk’s song “’Round Midnight.” This month I present Part Two of my article on reimagining jazz standards.

Second Ending Onward

This month, we pick things up at the second ending of my piano arrangement. It follows the lead of the first ending, but resolves with a somewhat Gershwin-esque flavor (*sus4* to major to minor). The tempo change at the start of the B section sets up the bridge for an up-tempo excursion. A small melodic cell echoes the original melody of the bridge of “’Round Midnight.”

Beat 4 of measure 32 (played the second time only) begins a whole step ascension to the *B♭7♭9♭13* chord in measure 37, a technique known as Constant Structure/Variable Function. Measure 40 requires some fleet fingers, but it looks harder than it actually is, especially after slow and deliberate practice. You might also recognize the trademark Monk whole-tone scale.

Measures 42-44 use octave and fifth/triad structures often associated with the pianist Chick Corea, who has a strong affinity for Monk, having recorded and performed many of his compositions. This progression mirrors Monk’s own for a pivotal part of the tune. Measure 45 has some diminished structures (derived from the diminished scale) that can also be heard on some of Corea’s work, but they veer off slightly in different directions. Measure 46 has another tempo change and helps shift gears with our trusty melodic motif established in the intro from Part One of this series. After measure 46, go back to the A section (measure 5 of this arrangement), and take the second ending. A restatement of the McCoy Tyner-flavored intro in measures 59 and 60 bookends the

- Herbie Hancock and Bobby McFerrin play “’Round Midnight.”
- Hear Andy play exclusive audio examples from this lesson online.

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arrangement—almost. It's followed by the recurring motif and another melody reference before one more resounding melodic motivic conclusion.

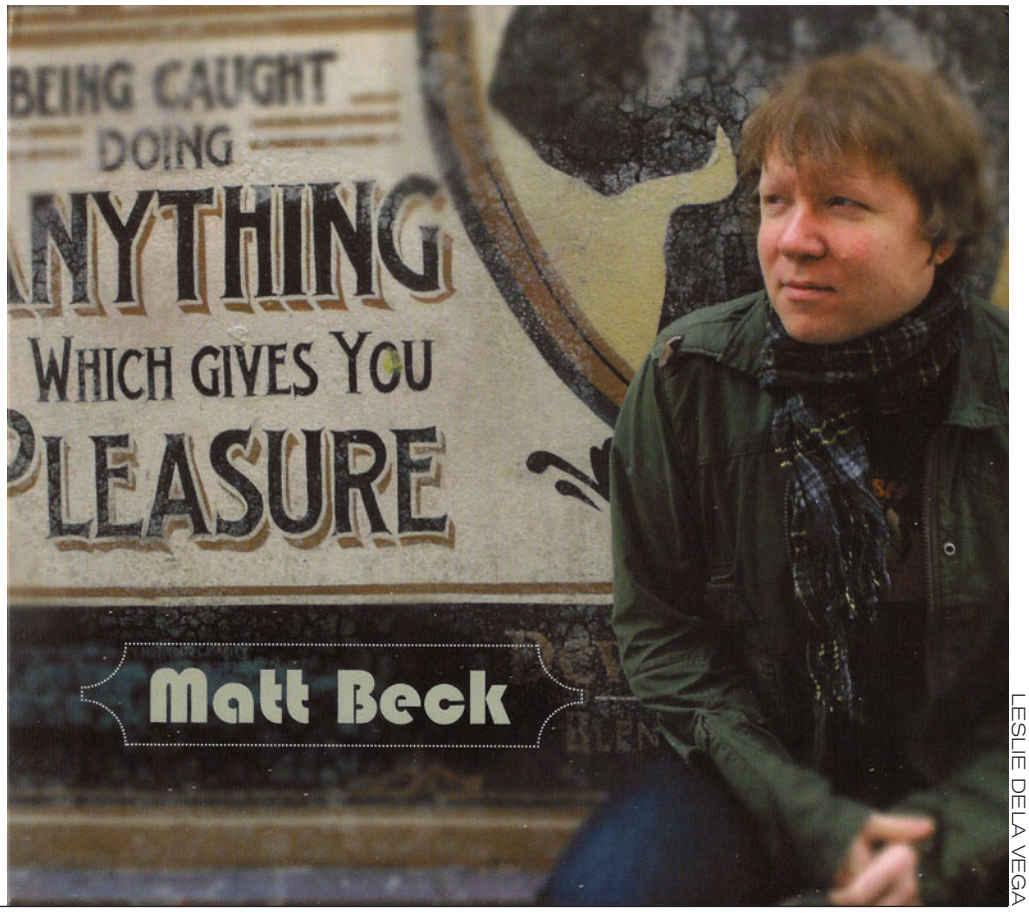
You might be wondering where the original intro and coda are. I chose to use McCoy Tyner's "lost" intro instead of the commonly played "Round Midnight" intro. The Latin-flavored coda usually associated with "Round Midnight" was not included due to space constraints. (A note of historical interest regarding the original intro and coda: Both were composed by trumpeter Dizzy Gillespie. They were so compelling and fit so well that many musicians, including Monk himself, used them to frame the song.) I hope my arrangement sparks some ideas and insights for your own solo piano excursions! ♫

Practice Tip

"Thelonious Monk composed the A section of 'Round Midnight' at the age of 19 and called it "Grand Finale." A few years later, trumpeter Cootie Williams composed the B section for a big band arrangement. The two sections were joined and became what we now know as 'Round Midnight,'" says pianist and composer **Andy LaVerne**, who has performed with artists such as Frank Sinatra, Stan Getz and Chick Corea. His latest projects include the book *Chords in Motion*, the DVD *Chords & Lines in Motion* and the CD *I Want to Hold Your Hand.* Andy is Professor of Jazz Piano at SUNY Purchase in New York and the Hartt School of Music in Connecticut, and on the faculty of the Aebersold Summer Jazz Workshops. Find out more at andylaverne.com.

LEFT HAND POWER PARTS

BY MATT BECK



LESLIE DELA VEGA

AS A SOUTHPAW, I'VE ALWAYS BEEN AWARE OF BOTH THE ADVANTAGES AND DISAD-vantages of being more comfortable using my left hand. Here are five keyboard techniques for using your left hand that both lefties and righties should find time to explore.

Ex. 1

1. Stride

Ex. 1 examines the technique of stride piano, a style of left-hand comping that was popular in the 1920s and '30s. In this style, the left hand characteristically plays a four-beat pulse with a single bass note on the first and third beats, and a chord on the second and fourth beats. Among the players that made this style popular were Fats Waller and Art Tatum. Stride can definitely be a workout for your left hand, especially when the tempos are fast. This style also can sound like two parts are happening at once (e.g. bass and chords), freeing up the right hand to play melodies so that the sum of the parts sounds like an entire band.

Practice Tip

"When it comes to keyboards, there really is no opposite way to approach the instrument *physically* like you can with many others. That being said, lefties who play the piano often come across aspects of playing that are potentially easier for them than for right-handed people," says **Matt Beck**, a multi-instrumentalist who plays keyboards and guitar with artists such as Matchbox Twenty, Rob Thomas, and Rod Stewart. Beck's most recent solo outing is *Anything Which Gives You Pleasure*. Find out more at myspace.com/mattbecktwenty and twitter.com/mattymay.

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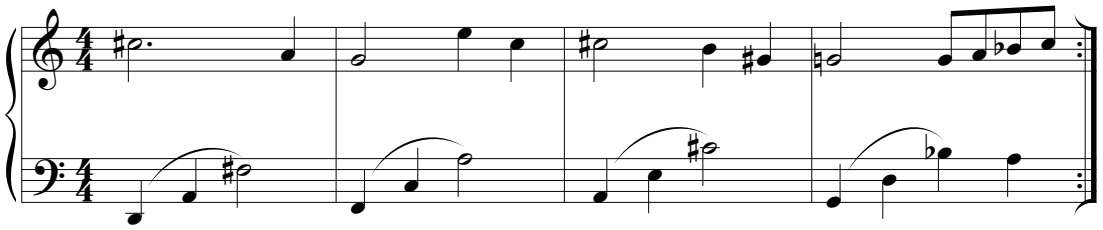
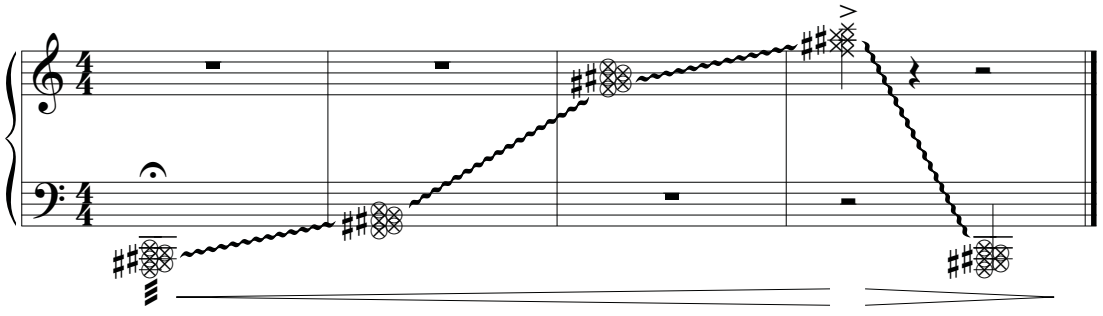
Ex. 2



Ex. 3

Ex. 4

Ex. 5



2. Wide Stretches

Being able to span a wide range of notes with the left hand is particularly helpful when trying to fill out sound on the piano, as illustrated in **Ex. 2**. Using wide intervals, such as tenths in the left hand, can add a rich and sonorous sound under your right hand, making a piano arrangement sound broad and full. Composer Claude Debussy was a master of this, as was Sergei Rachmaninoff, whose hands were so big that it was said he could reach an octave and a half from pinkie to thumb!

3. Percussive Comping

Percussive (or two-hand) comping is a technique where the left hand gets into the mix of what the right hand is doing within an accompanying pattern. This style is demonstrated in **Ex. 3**. Here, the left hand usually fits into a linear pattern where there is a steady pulsating beat and both hands are working together to keep the pattern going, similar to the way a drummer might play a two-handed pattern. Stevie Wonder and Dr. Lonnie Smith are masters of this kind of comping.

4. Walking Bass

The walking technique (seen here in **Ex. 4)** is simply playing a jazz bass line the way an actual bass player would. Organ players do this a lot with their left hands (or feet utilizing the organ's bass pedals if they are so inclined). Jimmy Smith and Joey DeFrancesco are two masters of this style of keyboard bass playing.

5. Sound Effects

The left hand can be used for parts that are more along the lines of sound effects, as in **Ex. 5**. Some of these techniques include mashing down a cluster of keys to create a thick wash of noise, or a long glissando across the whole keyboard to create excitement between musical phrases. It's a very effective way to add unexpected flair and surprise to a solo or part. Organ players utilize these techniques often, as do pianists such as Cecil Taylor. ♫

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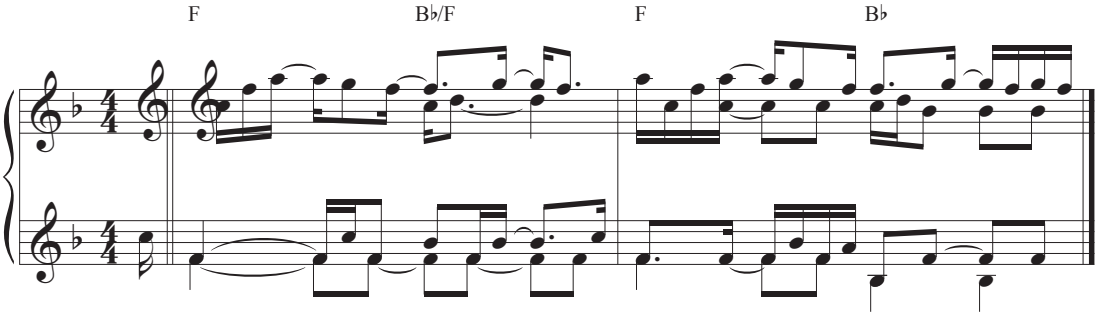
5 WAYS TO PLAY LIKE Elton John

BY SCOTT HEALY

ELTON JOHN IS A MUSICAL MARVEL. HE IS SIMULTANEOUSLY THE ULTIMATE SINGER/ songwriter and the ultimate *accompanist* for the singer/songwriter. In a career spanning nearly 50 years, he has produced hit after hit of piano-driven, high-intensity pop and rock music. His dynamic, soulful piano playing is the perfect match for his singularly expressive voice. Let's take a look at some of Sir Elton's iconic piano styles.

Ex. 1



Ex. 2

1. Intros

Ex. 1 illustrates Elton's gift for crafting mesmerizing introductions. Some of his classic intros sound almost understated (like "Your Song" and "Levon"), others are edgy and push forward into the first verse (like "Don't Let the Sun Go Down on Me"). This example has sustained *roots* and *fifths* in the left hand with melodic broken chords above. Pedaling in this style is very subjective, so let your ear guide you. (Change the pedal with the changing chords, but don't overdo it). These intros are definitely "in time" and some are even a bit "on top" and bold. Sometimes Elton will even imply the major add 2 chord with a rootsy "slip" note, like here on the *Bb/F* chord.

2. Rolling Accompaniment

For the first verse of a song, Elton might play a rolling, chordal accompaniment pattern like the one in **Ex. 2**. Play this broken chord style with a heavier hand than you might be accustomed to, but don't bang the keys. Hold down the notes longer so the chords they form ring out. Again, pedaling is very subjective here. The left hand pattern rocks back and forth between the fifth finger bass note and the thumb above, and these notes augment the repeated notes and figures in the right hand. In this example, the high left hand *middle C* rings out and blends in with the repeated *E* in the thumb of the right hand. The accented syncopations on top drive the music forward and support the vocal without overpowering it.

Ex. 3

Ex. 4

Ex. 5

3. Rocking Right

When a song starts to rock, so does Elton's right hand. In **Ex. 3**, rock your wrist and give a big accent on the strong beats and syncopations. Right hand wrist rocking is key. Really nail that fifth finger on the top of the chord. There are a few ways to play chords in this style: Bars 1-2 illustrate clean, broken chords. Bars 3-4 ask you to hold the top two voices while you play the lower *G* in the thumb, then hold that and play the upper two again. The whole chord rings together, even without the pedal.

4. Funky/Roots Playing

Some of Elton's tunes get quite funky, like "Honky Cat." **Ex. 4** illustrates a musical move he likes to make: He repeats a punchy left-hand bass note and funks it up with his right, using gospel-tinged 3- and 4- note syncopations and fills. He'll even get bluesy with New Orleans slides, slip notes, and grace notes.

5. Gospel Grace

Soulful gospel grooves and fills are embedded in Elton's style and can pop out any time, especially on a slow, soulful ballad like "Levon" or "Border Song." In **Ex. 5**, chords in the right hand are framed by an outer octave, which strengthens the melodic line. The left takes a strong and supportive role with steady octaves while the dotted rhythms and syncopations drive the rhythm forward. A hallmark of Elton's sound is the short, hard-edged left hand octave figure. This usually consists of a few sixteenth notes moving between chords that pop out and make the piano roar. ♫

Elton John plays "Saturday Night's Alright for Fighting" live.

Hear Scott play the audio examples from this lesson online.

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Don't Fret

SYNTHESIZING ROCK GUITARS

BY FRANCIS PRÈVE

WHILE WORKING ON A PROJECT RECENTLY, I REALIZED that I needed a metal guitar riff to round out the arrangement. As fate would have it, my go-to guitarist, Shreddward (from the Bright Light Social Hour), was on tour. Since the deadline couldn't wait, I realized I had to whip up the parts by hand using synths and effects. Naturally, I could have turned to a sample library for this, but I'm always up for a sound design challenge. So rather than rely on loops or a multi-sampled guitar, I decided to start from nothing and see what was possible. Within a few hours, I had some remarkably convincing parts that worked perfectly in the project. Here is the technique.

Step 1: While I could have used a multi-sampled clean guitar, I decided to start with an analog synth just to really push the possibilities. Since a real vibrating guitar string isn't detuned (and detuning can wreak havoc before a distortion effect), I started with a single oscillator sawtooth patch. Narrow pulse waves are another good choice, depending on the overall tone you're after. From there, I turned the filter cutoff to 75 percent and gave it a quick envelope with the mod amount set to maximum. On the amp envelope, I went with a long decay and release to simulate open strings for the power chords. Here's what the settings look like in Reason's Subtractor.

Step 2: To re-create the strum of a power chord, I relied on Ableton's Arpeggiator device, because its rate can be set in milliseconds. Here, I used a really fast setting of about 30ms. To make the strums even easier, I put a chord device before the arpeggiator, set to the tonic, a fifth, and an octave above. As Pete Townsend once opined, anything but a fifth can interfere with the distortion effect, so who am I to argue?

Step 3: Listening to the sawtooth patch with the arpeggiator and no processing, you'd be hard pressed to imagine that sound turning into a guitar. That's where the effects come in. If you've ever heard a metal guitar both dry and through a Marshall stack, you'll understand. Instead of relying on my DAW's overdrive and such, I opted for Native Instruments Guitar Rig, which is amazingly flexible and has some brilliant presets that are perfect for this application, even without additional tweaks. For the metal guitar, I used a preset called "Carlos in Europe."

Step 4: Lead sounds are even easier. You can skip the arpeggiator elements entirely. The secret here is keeping your playing style idiomatic, with wide intervals and a touch of pitch bend. For that lead component, I used Guitar Rig's "Dyna Solo" preset on the same synth patch, minus the arpeggiator and chord devices. ♫

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THE ART OF SYNTH SOLOING

Big Daddy (a.k.a. George Duke)

BY JERRY KOVARSKY

GEORGE DUKE'S TALENTS CROSSED MANY BOUNDARIES; HE WAS A PLAYER, singer, producer, composer, arranger, and larger-than-life, fun-loving friend to so many. His musical tastes encompassed many genres, and for me, he was the best player of his generation at utilizing and orchestrating with all the electronic keyboards.

I conducted a interview with him before his passing, and it appeared in *Keyboard*'s September 2013 issue. I highly recommend you check it out at keyboardmag.com; you'll also find audio lessons with him on his approach to each type of keyboard. "The Art of Synth Soloing" column in that issue focused on George Duke as well, again with additional audio content online. But until now, I haven't shared any transcriptions and analysis of his playing, and there is much to learn from him. So let's dig in!

Ex. 1

Ex. 2

Ex. 3

Ex. 4

Ex. 5

A7(sus4) A13 A7(sus4) A13 G7(sus4) G7(add13) A7(sus4) A13 A7(sus4) A13 G7(sus4) G7(add13)
1:15
A7(sus4) A13 A7(sus4) A13 G7(sus4) G7(add13) A7(sus4) A13 A7(sus4) A13
G7(sus4) G7(add13) A7(sus4) A13 A7(sus4) A13 G7(sus4) G7(add13)

Some Dukey Treats

George's playing conveyed a lot of feeling, and he was a master at blues and gospel music. I liken him to B.B. King, in that he could say so much with just a few well-placed notes, and his time and pitch-bending were masterful. Looking back to one of his earlier recordings, *Feel*, from 1974 our first examples come from a tune called "Funny Funk". It's a master class in soulful funk, with George playing Rhodes, Moog bass, Clav, and lead synth, accompanied only by Ndugu Chancler on drums. **Ex. 1-4** are all wonderful blues licks from the tune, and are a great place to start. Like B.B. King, it's not about the complexity of the notes/phrases: It's about how perfectly they are placed in time, and how much they sound like a blues singer's expressive cry. Listen to the recording: Each example is time-stamped so you can find them. Adding to the funkiness is Duke's use of a wah-wah pedal on the synth, which sounds different from just modulating filter cutoff.

Get the Funk!

Starting in 1977, George moved into a more commercial R&B direction, and had a number of chart successes, from albums such as *Reach for It* (1977), *Don't Let Go* (1978), *Follow the Rainbow* (1979), *Master of the Game* (1979), and *Dream On* (1982). The tune "Reach for It" and a later iteration "Son of Reach for It" sound like they came out of the Parliament/Funkadelic school. Any group wanting to play funk should be studying these tunes. **Ex. 5** is the beginning of Duke's synth solo and shows how he builds upon a simple motif, making only small variations to the melodic figures, often just in the rhythm. On the first chord he plays ba-

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sic *A7* figures, but for the second chord he keeps to an *A* minor pentatonic scale, so the key center remains *A* the whole time, and the note choices become more colorful over the *G7sus* chord.

In funk, repetition is important: Each player is providing one small piece of the puzzle, and each part needs to fit against the groove and leave space for the other players. That is what George is doing here—riding the groove and playing within the ensemble rather than over it. I provide the full solo online for your further edufunkation (sic).

Mr. Soul

My next solo choice (**Ex. 6**) jumps through time to the album *Déjà Vu*, from 2010, and the tune "You Touch My Brain". The song is a variation of a common jazz minor blues progression (*im7*, *♭VI7* —sometimes this is *VI half-diminished7* —*ii half-diminished7*, *V7*), and Duke plays a stellar synth solo on it. George sticks mostly to the C minor blues scale, and gets plenty of mileage out of it. The figure in bar 11 is a classic Duke line: I've heard this come up in his playing many times over the years.

More Than Just Blues

Duke enjoyed playing many styles of music, and Latin/Brazilian was very close to his heart. **Ex. 7** comes from one of George's favorite recordings (mine too!), *The Aura Will Prevail* (1974). The tune is called "Malibu" and is a wonderfully melodic, jazzy samba. Duke sticks with mostly mixolydian and pentatonic modes: I especially like the line starting in bar 13, where he arpeggiates an *F♯* triad over the *C♯7sus* chord, and at the top of the line he bends up from the third of the chord for a wonderful color—so melodic!

The solo sounds more to me like an expanded song melody, rather than the usual show-offy solo. This is another great aspect of George's playing: He always served the song and the production and paced his solos. Sure, sometimes he came barging in, full-steam-ahead on a fusion song. (Check out a great YouTube video of him playing "Stratus" with Billy Cobham at the Montreux Jazz Festival in 1998!). But often he would start a solo quietly, and draw the audience in, playing sparsely until he knew he had everyone's attention.

More Online

As an extra treat I've transcribed one more burnin' Duke solo, from the tune "Fuzzzion" from his *Night After Night* album from 1989. We've posted it online for you to study and enjoy.

There is so much to learn from George Duke's playing, and it is important to keep his music alive for new generations to appreciate. I'll end with some words from the master himself, taken from a song folio published in 1978 (©1978 Almo Publications) that I have in my music library: "My records and performances are like taking a trip through music and absorbing what you can feel from the various styles presented. It is not necessary to look so closely at the technical aspect of the music, but rather to feel what is there, accepting it for what it is and taking the trip." Thanks for the trip, Big Daddy! ♫

Ex. 6

Ex. 7

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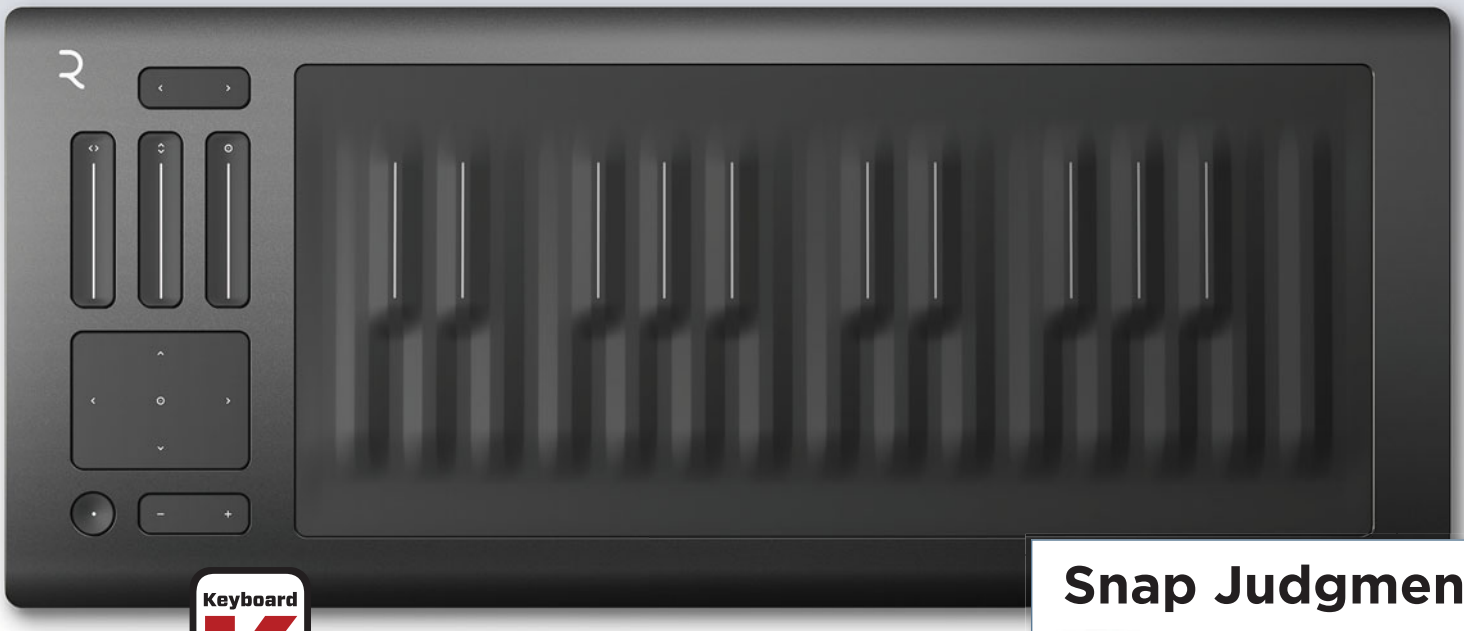

Keyboard K KEYBUY AWARD

ROLI
Seaboard Rise

BY GEARY YELTON

ONE OF LEGENDARY INVENTOR BOB MOOG'S QUESTS IN LIFE WAS TO DESIGN an instrument controller with greater expressive capabilities than traditional keyboards. He wanted a keyboard that let players produce vibrato and shape timbre using the same fluid, natural motion they use to play notes, like most non-keyboards. If Bob were alive today, I suspect he would be thrilled about polyphonic multidimensional controllers (PMCs) such as the Roger Linn Design LinnStrument, Eigenlabs Eigenharp and Haken Continuum Fingerboard.

Two years ago, London-based company Roli launched a PMC called the Seaboard Grand. Aimed squarely at keyboard players, it got a lot of attention and sparked a lot of desire. At $8,888, however, the price of the 88-note model was way more than most musicians were willing to shell out. Roli recognized that a better price point would boost the Seaboard's chances of surviving and recently introduced the Rise, an affordable 25-note version with most of the same capabilities as its pricier counterparts.

Look, Ma, No Keys!

The all-black, slightly wedge-shaped Rise is surprisingly thin, surprisingly heavy and sits comfortably in your lap. Its playing surface is a thick sheet of elastic silicone with 25 raised ridges molded into keywaves. Although the keywaves are the approximate length, width, and spacing of piano keys, the Rise has no moving parts. Like a keyboard, the keywave surface has "black keys" that stand in higher relief than the "white keys." The only markings are thin white stripes on the "black keys." I found it a bit disorienting to be playing an all-black near-keyboard that had black keys where white keys should be and white stripes where black keys should be.

The keywaves sense five types of expression: velocity, Aftertouch, release velocity, vertical movement and horizontal movement. Roli calls these dimensions Strike, Press, Lift, Slide, and Glide, respectively, aka "the five dimensions of touch." Producing vibrato by wiggling your finger to subtly vary pitch is definitely more expressive than using a modulation wheel because you're directly controlling depth and speed simultaneously. In addition to the usual channel Aftertouch, the Rise can respond to individual finger pressure by sending MIDI on up to ten channels simultaneously.

Above and below the keywaves are 3/4"-wide flat sections called pitch ribbons. Though you can

Snap Judgment

PROS Easiest PMC for keyboardists to learn. Includes a top-notch soft synth that takes advantage of its strengths and has a stereo signal path all the way through. Very affordable compared to other PMCs.

CONS Difficult to see in low light. Can't perform entirely smooth glides. Equator soft synth is a processor hog.

Bottom Line

Among the current crop of polyphonic multidimensional controllers, the Rise is the most affordable and among the easiest for keyboardists to play.

$799
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Fig. 1: Making the most of the Rise's enhanced expressive capabilities, the Equator soft synth packs a lot of sound-design capabilities into a clearly organized graphic user interface.

use these to play the Rise like an Ondes Martenot or electro-theremin, they're most useful for sliding into notes by moving your finger from a ribbon to a keywave. Even with the Glide parameter up full, though, you can't do an entirely smooth glide because the pitches are stepped.

To the playing surface's left are illuminated buttons, assignable touch faders and an assignable x-y touch pad. One pair of buttons steps through octaves, and another pair changes presets. Illumination on the three faders indicates their current settings. The power button doubles as a switch to select either Expression or MIDI mode. In Expression mode, the touch faders determine how Glide, Slide and Press respond to your playing dynamics. In MIDI mode, they control whatever MIDI CCs you choose.

On the Rise's left side, a 1/4" pedal jack accommodates a footswitch or pedal for modulating any destination you choose. A USB Type B jack connects to your computer, carrying MIDI data and providing power to the Rise, and a USB Type A jack connects to mobile devices. A connection for a third-party power adapter lets you charge the Rise's internal lithium polymer battery in much less time than USB. You'll need to use the internal battery power if you want to connect to another device using Bluetooth.

I should also mention that the Rise comes in its own hard foam carrying case to protect it from the rigors of the road. For protection at home or in the studio, the optional Rise Flip Case ($130) is a semi-rigid cover, very much like an Apple iPad Smart Cover, that folds into a stand for mobile devices.

The Software Side

Although the Rise has buttons and faders for real-time performance control, it lacks any kind of display or physical controls for global settings. That makes its companion application Dashboard essential for managing performance parameters such as MIDI channels and modes, CC assignments, dynamic range curves, and so on. Dashboard is also where you download and install software and firmware updates.

Roli's bigger Seaboards, the 37-note Grand Studio ($1,999), 61-note Grand Stage ($2,999) and 88-note Grand Limited First Edition, contain an onboard synth engine powered by Linux. The Rise, however, is strictly a MIDI controller. It works with any MIDI hardware or software instrument, and because it's class-compliant, it appeared immediately in Audio MIDI setup when I connected it to my Mac via USB. The Rise delivers the biggest bang, however, controlling Roli's included soft synth, Equator (see Figure 1).

Equator runs in Windows or Mac OS X, either standalone or as a plug-in; a player for the iPhone should be available by the time you read this. One thing I appreciate about the standalone version is that you can undo or redo your most recent change. I also like that Equator can fill my display at the click of a button. I wish all soft synths supported these two functions.

Though optimized for the Seaboard, you can play Equator with any MIDI controller. A browser lets you choose from 127 factory presets that show off its capabilities, or you can create your own. Equator is specifically designed to take advantage of the Seaboard's five types of touch modulation, with graphical controls for changing expression curves that display real-time feedback as you play. In the GUI's top half, the Synth view appears by default, and you can access the Mixer and Global views by clicking on tabs. The GUI's bottom half contains all your modulation controls with sections for keywave parameters, touch faders and touch pad, two LFOs and five freely assignable envelope generators.

Equatorial Architecture

Equator's signal path is stereo throughout, beginning with three DSP-generated audio oscillators. You can choose from 49 digital waveforms, and an FM module lets you configure the oscillators to modulate one another in any of four combinations. You also get two stereo sample-playback sources with a selection of 55 multisamples. Samples include pianos, guitars, choir, orchestra, strings, mallet, and flute, along with synthesized sources that have names like Outerpad, PM Coconut, and Wallet.

Each sample source has its own multimode filter, as does the pink and white noise generator. You can route the combined output of the oscillators, samples, and noise generator through two additional multimode filters. All five filters are identical, with the usual lowpass, highpass, and bandpass types, as well as notch, comb, and an assortment of state-variable filters. Stereo effects include ring modulation, EQ, chorus, delay, reverb, and unusually sophisticated bitcrusher and distortion processors.

Equator requires some pretty hefty lifting from your computer. Running it on my 7-year-old, 8-core, 3.2GHz Mac Pro with plenty of memory and OS X 10.9, it frequently sputtered as I played—something no soft synth has ever done on my computer. According to Roli's minimum system requirements, it needs a more up-to-date processor—a 2.5GHz i5 or faster. By the time I finished my review, I had a brand-new, quad-core, 4GHz iMac Retina running OS X 10.11, and everything worked perfectly. Nonetheless, you should be aware that this synth eats CPUs for breakfast.

Rising Above the Fray

The Rise does most of what the more expensive Seaboards do, albeit with a physically narrower note range, and it does it so well you have to wonder why the other Seaboards are so expensive. Granted, they have internal sound engines and the Rise is only a controller, but the included soft synth is identical to their internal synths.

If your computer can handle it, Equator is very capable and fun to use. Its combination of DSP waveforms and sample playback gives it a sound all its own, and its nuanced response to your playing makes it the perfect match for Roli hardware.

I've played several PMCs and own a Continuum, and the Rise looks like the one most likely to succeed in the marketplace. The price is right, its possibilities are vast, and it's similar enough to a traditional keyboard that the learning curve isn't particularly steep. At the very least, you should get your hands on one and take it for a spin. ♫

Fig. 1: The Roland Boutique JU-06 synth module is shown here mounted into the K-25m, a two-octave keyboard dock with mini-keys.

ROLAND
Boutique Series

BY FRANCIS PRÈVE

THANKS TO SAVVY INTERNET MARKETING, ROLAND'S BOUTIQUE SERIES WAS the talk of the synth world for the better part of Autumn 2015. And rightfully so, as Roland has harnessed their acclaimed Analog Circuit Behavior technology in the service of reissuing three of their legendary '80s polysynths—the Jupiter-8, Juno-106, and JX-3P—as four-voice table-top modules. Each of the modules can function via MIDI or USB, complete with 44.1kHz/24-bit audio support for keeping everything in the digital realm. Roland also offers a mini two-octave keyboard dock, the K-25m ($99; see Figure 1), which allows for two-stage tilting of the control panel so it's easier to access when playing. I will cover each synth in its own review, but let's go over the common features first.

Shared Features

For starters, the design and construction, across the board, are absolutely stunning, with metal faceplates, silver knobs and LED sliders and buttons that reflect the color palette for each of the synth replicas. There are also two ribbons for pitch bend and mod wheel, with the mod wheel serving exclusively to add pitch LFO. In addition, the pitch-bend ribbon serves double-duty for patch auditioning when no MIDI, USB or keyboard connection is present. Overall, the feel inspires confidence.

On the bottom of each is a battery compartment, recessed connection for attaching the K-25m's ribbon connector, and a tiny speaker for using the modules on the go. The back of each unit includes connectors for micro-USB, MIDI I/O, stereo audio output, headphones, and an external input that's routed straight to the phones for playing along with a mobile device (see Figure 2), as well as daisy-chaining the audio of multiple modules. The audio connections are all 3.5mm mini jacks. The units do not include a micro-USB cable, which can provide power when you want to save on batteries, so you'll have to buy that separately.

While each synth engine is unique, all three models have a few common amenities. There's a simple Roland-style 16-step sequencer that relies on the patch select buttons for note input and adding ties and rests. Frankly, the system for recording and editing is extremely refined and intuitive and my only gripe is that you can't input chords on individual steps. But since the sequences are monophonic, you still have three voices left for comping or leads.

In addition to the sequencer, each synth can function in solo, unison or polyphonic mode, with poly-

Fig. 2: The rear panel on each of Roland's Boutique modules includes an audio output, headphone jack, MIDI I/O, USB port, and external audio input. A speaker is located on the bottom.

phonic portamento available too. Solo mode switches to single-voice monophonic, while unison stacks all four voices on a single note. I've heard some complaints about the four-voice limitation, but since all units allow for voice chaining, you can just buy more and link them. And with these modules priced in the $300 to $400 range, you won't break the bank either.

What's more, you can use chain mode even if you have two different models, though system-exclusive control of the slave modules only works with the same model. That said, chain mode doesn't kick in until five or more voices are actively played. That is, if you have a patch with extended releases and you're playing long legato passages, you'll still be limited to four-voices.

Configuring MIDI, pitch bend range, and velocity behavior requires a trip to the manual, as there are lots of key combinations to press in order to access these features. Also, velocity is a strictly volume-based affair, which makes sense since none of the original synths included a velocity-sensitive keyboard in the first place.

There is also a basic digital delay available in all of the synths. Delay settings can be saved with each patch, but setting it up is a bit tedious.

All in all, it's amazing that Roland has packed all of these features into such tiny modules and managed to keep the price truly accessible. Besides, who has the space for three more five-octave keyboards these days?

JP-08

When it comes to vintage analog polysynths, the Jupiter-8 was arguably the leader of the New Wave movement. After all, it was the signature synth on Duran Duran's *Rio* album, as well as being a staple in the arsenals of Thomas Dolby, Depeche Mode, and Howard Jones.

The Jupiter's silky smooth 3109 filter wasn't the only attraction for the cool kids. The real draw was its dual-oscillator architecture (with both sync and cross-modulation options), two envelopes with flexible assignments, and a discrete highpass filter in conjunction with 2- and 4-pole lowpass modes, making it a must-have for the era. Combine that with the ability to split the keyboard, or layer two sounds for extremely fat textures, and its obvious why the Jupiter-8 commands nearly ten grand on eBay for a pristine unit.

Despite the JP-08's four-voice polyphony, Roland managed to retain the original's innovative layering functions, with the caveat that polyphony is further reduced to two voices, which is fine for leads. The rest of its features are identical to the original Jupiter-8's synthesis engine with a few extended functions that give the JP-08 a touch more sonic range, while remaining faithful to the overall sound.

For those who aren't already familiar with the synth's architecture, it has two mixable oscillators followed by a non-resonant highpass into resonant lowpass filter with selectable rolloff. At the end of the chain is a VCA with programmable volume, which is essential for level-matching your patches, especially when layered.

The oscillators are also capable of both hard sync and Roland's "cross-mod" feature, which is just a nifty name for analog frequency modulation of oscillator 1 by oscillator 2. The original Jupiter's collection of waveforms—saw, triangle, sine, variable pulse, square and noise—are all present and accounted for, but distributed between the two oscillators differently, adding sonic flexibility. What's more, oscillator 2 can be switched to low frequency mode for use as a second LFO in conjunction with the above cross-mod feature.

The Jupiter-8's modulation amenities are another reason for its continued success. While an LFO and two ADSR envelopes may seem conventional by today's standards, Roland's approach offered flexible routing, like the ability to select which envelope modulated the cutoff, as well as LFO and/or envelope modulation of pitch, filter, VCA and pulse-width. In addition, it included the ability to add keyboard tracking to either or both of the envelopes, with shorter decays in higher registers. It was this combination of

Snap Judgment

PROS Absolutely authentic re-creation of the Jupiter-8 sound and features. Extensive modulation options. Highpass and resonant lowpass filters. Expanded waveform selection for oscillators and LFO.

CONS Fader throw is short, which makes programming a bit more challenging than the other Boutique synths.

Bottom Line

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features that put the original Jupiter far ahead of its competitors. In translating these modulation tools to the JP-08, Roland remained faithful to the original, with the addition of a few more LFO waveforms and increased frequency range.

The JP-08's preset bank is a testament to the accuracy of this emulation, as some sounds are immediately recognizable from classic '80s hits, especially the pads and a few exotic effects. As for sound design, I had several "a-ha moments" when working with the cross-mod feature, instantly hearing specific textures and finally understanding how they were originally created. I also listened closely to the character of the emulated analog drift in both the oscillators and filter, recording a few examples (available at keyboardmag.com) so you can hear for yourself how convincing this synth is. And for those who will inevitably bemoan the JP-08's four-voice polyphony, you can always buy a second unit for voice chaining and still come in under a grand.

So, does the JP-08 sound exactly like a vintage Jupiter-8? Well, no two vintage Jupiters sound exactly the same: Such is the nature of analog gear as it ages. A more apt question would be: Does a vintage Jupiter-8 sound $9,000 better than the JP-08? And to that, the answer is a resounding "Nope!" As far as I'm concerned, the JP-08 is an absolute triumph in the quest for recapturing the sound of one of the most sought after vintage synthesizers. So much so that I'm actually going to sell one of my old analog polysynths to make room for the Boutiques in my ever-evolving rig. This could be the best $400 you'll *ever* spend on a synth.

JU-06

The Juno 106's predecessors—the Juno-6 and Juno-60—were among the first synths to bring polyphony to the masses back in 1982, thanks to their sub-$2,000 price tag. As a result, New Wave keyboardists on a tighter budget than their Jupiter-wielding siblings quickly adopted them. But it wasn't until the arrival of the MIDI-capable Juno 106 in 1984 that the Juno series achieved legendary status. More interestingly, the true rise of this particular Juno didn't happen until the late '80s, when it was co-opted by the early rave scene and swiftly became *the* polysynth of that generation.

While the 106 was nearly identical to the 6 and 60 in terms of features and sound, there were a few features from its precursors that were missing, notably, freely adjustable highpass cutoff settings. Fortunately, Roland remedied that with the JU-06 (along with a few other niceties), making it a hybrid of the three Junos (with a touch of SH-101 flavor when used in solo mode) to round out the package.

With its sparkling faders and glowing blue buttons, the JU-06 is arguably the prettiest of the boutique series. It's also the easiest to use, thanks to the Juno's streamlined feature set, consisting of a single oscillator (with sub-oscillator and noise generator), non-resonant highpass followed by a 4-pole resonant lowpass filter and a single ADSR envelope for both the filter and amplifier. Just like the original, the filter can self-oscillate with the oscillator off and it sounds spectacular.

There's also a triangle wave LFO with delay that can modulate pitch, pulse-width, and/or cutoff. It would have been cool if the envelope could also modulate pulse-width, like the Juno 6 and Juno 60, but that's a minor quibble in light of the quality of this emulation.

Speaking of that quality, the attention to detail in the JU-06 is remarkable. As with the original Junos, there are three chorus modes: chorus, ensemble, and a tremolo-like quiver. These are duplicated here with such precision that, as with the originals, engaging the chorus immediately adds a layer of hiss to the synth's output. Cheeky? Yes. Accurate? Absolutely. Do I wish there was an option for turning it off in the 21st century? Kinda.

Despite its simplicity in parameters, there's clarity of purpose in the JU-06. It may not have the widest range of tonal colors, but it makes up for that in the fact that it simply cannot sound "bad." There's something about the Juno's approach to subtractive synthesis that makes it incredibly easy to understand the essentials; it's direct and intuitive, even for newcomers.

In addition to its ease-of-use as a polysynth, the JU-06 is an extremely capable lead synth when switched into solo/monophonic mode. Adding portamento with the chorus off makes the JU-06 sound a *lot* like an SH-101, which is no surprise, considering they share the same 3109 filter chip. Yes, there are certain differences between the two models, but the overall sound is strikingly similar in a way that's unlike any of the other Boutique models. Then there's unison mode, which stacks all four voices on a single note. Massive.

The big question here is accuracy, and in that area the JU-06 is another hit. To that end, I took the Boutiques to Austin's synth shop, Switched On Music, to A/B the sound of the JU-06 with the original. Because the vintage unit did not contain original factory presets, I was forced to rely on the front panel of each, so there were slight differences in each synth's settings. (Check out the audio files at keyboardmag.com.) While I wasn't able to set the

Snap Judgment

PROS Stunning reproduction of the Juno-106 sound. Continuously variable highpass cutoff. LFO rate now extends into audio range. Lowpass filter can self-oscillate. Chorus/ensemble is authentically noisy.

CONS No envelope modulation of pulse-width as on Juno-60. Chorus/ensemble is authentically noisy.

Bottom Line

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parameters identically for each sound, the end result is obvious: The JU-06 sounds astonishingly close to the original. So much so that in the context of a recording or live performance, the results would be indistinguishable, especially in the filter resonance and low-end.

The JU-06 nails the Juno sound decisively for about three hundred bucks. For that reason alone, it's worth serious consideration for your collection of vintage gear, unless, of course, you enjoy dealing with a $1,500 price tag and the occasional blown voice chip. The choice is yours.

JX-03

With the Jupiter-8 well out of my price range and vintage Junos costing nearly as much as my Prophet, I'd been giving serious thought to picking up an original JX-3P, which can be found for around a grand on eBay. In the '80s, the JX occupied a peculiar space in keyboardists' arsenals. For starters, it was Roland's first MIDI synth (along with the Jupiter-6), itself unique back in 1983. And unlike its immediate predecessor, the Juno-60, it was also a two-oscillator affair giving it a bit more synthesis range. On the other hand, it was the first Roland synth to eschew integrated front-panel controls, requiring you to purchase a PG-200 programmer for full functionality, while offering a small complement of factory ROM presets for immediate gratification.

The original JX-3P's sound was unique, if a bit less well known. Whereas the Jupiter-8's drifty VCOs had a warmer overall character and the Juno's integrated chorus and pulse-width modulation imparted richness and depth, the JX-3P'S DCOs had a more straightforward sound. This meant that it could cut through a mix with ease, especially in synth-centric tracks. It was bright and punchy, though at the expense of a certain thickness, despite its integrated stereo chorus. For me, that's part of its identity and charm. I love synths that have a specific flavor and the JX-3P certainly fits the bill.

The JX-03's architecture is surprisingly capable, with a few modulation idiosyncrasies that enable some impressive tricks. The original 3P oscillators had three waveforms—saw, rectangle and square—with an additional noise mode on oscillator 2. The JX-03 includes faithful replicas of those waves and adds sine, triangle and noise options on both oscillators. In addition, the original 3P offered hard sync and a mode called "metal" on oscillator 2. Here, there are two sync modes and two metal modes, along with a new ring modulator. While the sync options deliver obvious results, the metal effects are more unusual. To my ears, they're not simple FM or ring mod tricks, and they work best when tuning the oscillators to harmonically relevant intervals.

Speaking of tuning, the JX-3P's DCOs were renowned at the time for their pitch stability, with absolutely *zero* drift when tuned to the same frequency. Nowadays, that sound has a distinctly digital flair, but for the metal and ring mod effects, it makes for some really unusual digital tones that would be hard to re-create by other means.

As with the other two Boutiques, the JX-03 filter is a highpass plus resonant lowpass affair, but in the 3P implementation, the resonance is considerably tamer. Yes, it can squelch nicely, but you can't push it into self-oscillation. Again, this is part of the synth's identity, not a shortcoming.

When it comes to modulation, the JX-03 does some interesting tricks with just a single LFO and ADSR envelope. For VCA duties, the envelope can be switched off, with a simple on/off gate taking its place in the same manner as the Juno, allowing the envelope to be used on modulation elsewhere. The JX-3P's LFO originally offered sine, square and random (sample-and-hold) options, whereas the JX-03 includes up and down sawtooth waves along with noise, which is great for adding grit to the filter, especially with higher resonance settings. In the case of the filter, the LFO and envelope both include independent knobs for blending the two modulation sources.

The JX-03 approach to pitch modulation is where things get interesting. Here, there are two global amounts for both oscillators, with the unusual ability to toggle sources within each oscillator. For example, you can set the envelope to control one oscillator's pitch while the LFO modulates both simultaneously.

Using this simple approach you can do clever tricks like modulate the pitch of oscillator 1 with the envelope while using oscillator 2 as a noise source, then modulate the filter cutoff and amp with the same envelope. This results in a convincing Simmons tom emulation (an example is at keyboardmag.com). Another cool trick is to subtly modulate the pitch of one oscillator with a sine wave, leaving the other's tuning intact, which is great for chorusing effects.

Speaking of chorus, the JX-03 includes the same stereo chorus effect, complete with a touch of hiss, as the original JX-3P.

As with the Juno, I took the JX-03 to Austin's boutique Switched On music for a direct A/B comparison with the original. Again, the Boutique version was nearly indistinguishable from a real JX-3P, with the possible exception of the modeled sound being a trifle more transparent than the 30-year-old edition. That, to me, is a big plus and frankly makes the JX-03 even more enticing.

While many gear heads are going to gravitate toward the more popular JP-08 and JU-06 Boutiques because of their familiarity, it would be a mistake not to take a *very* close look at the JX-03, because it's an extremely versatile workhorse when it comes to classic '80s sounds. ♫

Snap Judgment

PROS Indistinguishable from a real JX-3P. Refreshingly flexible modulation options. Additional waveforms and cross-mod modes increase sonic range. Expanded LFO. Integrated stereo chorus.

CONS As with the original, chorusing adds a touch of hiss to the output.

Bottom Line

A surprisingly versatile vintage synth worthy of the Roland name.

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PITTSBURGH MODULAR

System 10.1

Keyboard K KEYBUY AWARD

BY FRANCIS PRÈVE

AS I BEGAN MY JOURNEY INTO THE WORLD OF MODULAR GEAR, ONE OF THE first synths I picked up was a Doepfer Dark Energy Mark I. Its compact size and small array of CV I/O was the perfect gateway drug for my addiction to wires. It was—and still is—a great sounding box for the size and price.

But within a month or two, I started bumping into its walls. Despite a capable collection of jacks, there was no voltage mixer or mult patchbay for attenuating, splitting, or merging CVs—all crucial elements in a modular starter rig. So when I saw Pittsburgh Modular's new System 10.1, I immediately felt a twinge of belated buyer's remorse. Spec-wise, the System 10.1 is the perfect entry-level modular synth and includes the majority of essentials for diving into the voltage-controlled universe. The only remaining question: How does it sound?

Snap Judgment

PROS Ability to create rich, complex sounds in a small footprint.

CONS No USB MIDI.

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Architecture

The core of the synth, the Synthesizer Box module, is a single-oscillator affair with a few exotic extras that set it apart from many of its competitors. For example, in addition to triangle, sawtooth and variable-width pulse, it includes a waveform called Blade, a switchable alternative to the sawtooth. Recording it into my DAW, it appears that the Blade wave is an inverted saw that's an octave higher than the other oscillator waveforms.

The Blade wave gets a bit more interesting when you apply LFO modulation to it; the waveform starts to morph between a square-like shape and the inverted octave saw, resulting in some really cool harmonic motion. To be candid, my tests were extremely informal here. The big takeaway is that the Blade wave is a unique and useful addition to the oscillator's spectral output and helps give the System 10.1 a sound that's normally associated with dual-oscillator synths.

There are a few other interesting oscillator amenities, as well. Like the fact that the triangle wave seems to be slightly out of phase with the square, resulting in a *lowering* of volume in the first harmonic when it's added via the System 10.1's waveform mixer. There's also a simple sub-oscillator that tracks the main oscillator with a square wave an octave lower. This sub isn't available on the mixer, however. Instead, it relies on a three-position switch that toggles between off and two hardwired volumes.

As for the lowpass filter, it combines VCF and VCA functions into several different modes: VCA only, lowpass and the classic Buchla-style "lopass gate." In VCA mode the cutoff knob behaves like a cross between a volume potentiometer and an overdrive circuit, with high values adding a *lot* of gain to the signal. In lowpass mode, it functions like a standard lowpass with some of the filthiest resonance I've ever heard. It's absolutely monstrous in all the right ways. In lopass gate mode, the resonance knob is inactive, but the overall result is extremely warm and rich.

As for enveloping, the System 10.1 filter can be set in one of two modes, Mod and Ping. In Mod mode, the unit's standard ADSR functions as expected as a cutoff modulator. In Ping mode, the ADSR modulation is bypassed and replaced with an extremely sharp and thwippy decay that's fantastic for adding transients to your sounds. Interestingly, the ping also modulates the filter when it's in VCA mode, adding a sharp transient to the volume envelope when active.

The envelope itself is a slight variation from the usual ADSR, with knobs for attack, decay and release, but an on/off switch for the sustain function. In practice, this was a minor caveat. As for the LFO, it's a standard triangle wave when hardwired, but includes outputs for both square and triangle in the synth's patchbay. Finally, there's a Glide knob for adding lag to the keyboard's CV. I was a tad disappointed that this wasn't accessible from the patchbay as a lag generator, but it's not a huge issue in this context.

Fig. 1: For an extra C note, the Pittsburgh Modular System 10.1+ includes additional empty slots so you can customize your rig to meet your exact needs

Modular Features

The rest of the panel is festooned with ins and outs for pretty much every synth parameter, including outputs for each of the individual waveforms and sub-oscillator. In addition to the synth's jacks, the Mix/Mult module provides three logarithmic potentiometers that include dedicated I/O jacks. The logarithmic behavior makes them best suited for audio, but you can also scale external voltages with them, if needed. This section is best thought of as a secondary mixer, but as with all modular gear, imagination and experimentation is the key. At the bottom of the panel is a pair of passive mults.

MIDI3 is a two-channel MIDI-to-CV module with additional outputs for velocity and a single CC output. This can be configured in one of three ways: with a single monophonic output where CV1 and gate 1 being mirrored by CV2 and gate 2; duophonic output with the two voices being sent to separate CV and gate outputs; or a dual monophonic output with each pair of CV/gates responding to its own discrete MIDI channel. In addition to the MIDI features, there's also a synched clock with its own tap tempo button and an integrated arpeggiator. The Outs module has dedicated 1/4" headphone and stereo line outputs.

There are some cool tricks you can do with all of this I/O, such as using the envelope to modulate pitch, pulse-width or the Blade wave, or create drone patches with slow, evolving modulation from the LFO. But if you want to go further, you'll need to expand the system with additional modules. This is where the System 10.1's bigger brother, the 10.1+, comes in (see Figure 1). It includes all of the features of the standard 10.1, as well as six additional empty Eurorack slots (with panel covers) so that you can add more modules from Pittsburgh or other manufacturers. Best of all, the 10.1+ is a mere $100 more than the base unit, making it an extremely attractive alternative.

Get Patched

All in all, I was thoroughly impressed with the System 10.1 as a starter package for those looking to explore modular synthesis. The Synthesizer Box module, alone, is capable of some truly massive sounds that have unexpected girth and depth, which makes it a worthwhile contender even without the impressive complement of essential modular tools.

The System 10.1 is a no-brainer as your first modular component. That said, I'd definitely splurge the extra hundred bucks and snag the 10.1+ because of its extended width. This way, you can immediately begin your quest for additional modules. And trust me, that quest will begin far sooner than you expect. ♫

Bottom Line

The perfect starter synth for modular adventures.

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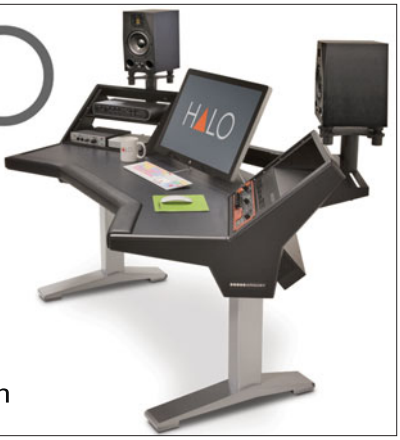

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TRAVIS M. BALL

5 THINGS I'VE LEARNED ABOUT Mixing Music

BY JEFF JULIANO

I HAVE BEEN RECORDING AND MIXING RECORDS PROFESSIONALLY SINCE 1994. I have seen, worked, and lived in the days of big studios; analog tape machines; and large-format Neve, API, and SSL consoles. It wasn't too long ago that we had big recording budgets, studio assistants, endless outboard gear, and records that sold millions of copies. Fast forward to 2016. I have my own private "hybrid" studio in sleepy southern Delaware and I couldn't be happier. Here are the top five things I have learned about mixing along the way.

1. Start with a Good Recording

This is not rocket science. Record your music the best that you possibly can. Get your source instrument (i.e. guitar, keyboard, vocal, drum kit, etc.) sounding right in the room *before* placing a microphone in front of it. No plug-in is going to be able to completely salvage a bad recording later in the mix stage. Make it easier on yourself (and guys like me) and make every track sound as you would want it to in the final mix, from the beginning of the recording.

2. Know Your Monitors

The most important part of mixing is hearing things properly. Listen to music you know well (sonically) through the speakers in your room. Every decision you make from recording to the final mix will be based on your sonic understanding of what is coming from those speakers in that room.

3. Organize!

Organizing the tracks in your DAW so that the layout is familiar to you will make you work faster and smarter. Oftentimes, the longer you spend on a mix the worse it gets. This is the main reason people fall in love with their "rough" mixes. They spent little time on them, but the gut instincts of which parts matter in the song are more in focus. Also, if you are mixing songs produced and recorded by someone other than yourself (as I do), take a day and create a few different mix templates for various genres. Focus on the layout of the mix and edit window, routing, bussing, color coding, etc. Set up reverb and delay returns, and insert certain plug-ins on channels bypassed but ready to go when you need them. The quicker you can start mixing and get the vibe of a song happening, the better the end result.

4. B Is for Balance

Take a few minutes and learn the song you are mixing. Push the faders up. Learn what makes it tick. Find the "hook." Knowing these things early on will help you get to the finish line. I hear so many mixes where it sounds like the mix engineer spent hours on the drums and ten minutes on the lead vocal. Of course the drums/beats should always sound great, but the 15 year old who downloads the song three months later couldn't care less about the signal path you used to get your snare drum sound. Always keep the end-listener in mind.

5. Use a Real Mastering Engineer

So often, people are mixing through "brick wall" limiter plug-ins, trying to create the loudest mixes of all time. They are essentially mastering their music themselves, while simultaneously crushing the dynamics and life out of the music. But mastering isn't all about volume. It's the absolute final stage to fine-tune your mix by adjusting frequencies that are too harsh or muddy, and where you get songs recorded in several locations to sit together as a consistent record. Find a mastering engineer you trust and your recordings and mixes will thank you.

Veteran engineer **Jeff Juliano** has mixed music for Train, John Mayer, Jason Mraz, O.A.R., Phillip Phillips, Paramore, the Dave Matthews Band, Rachel Yamagata, and many others. He also recently released his own drum sample library with drummer Nir Z. Find out more at jeffjuliano.net or iwantthatsound.com.

Jeff talks about mixing technology in API's "1 on 1" series.

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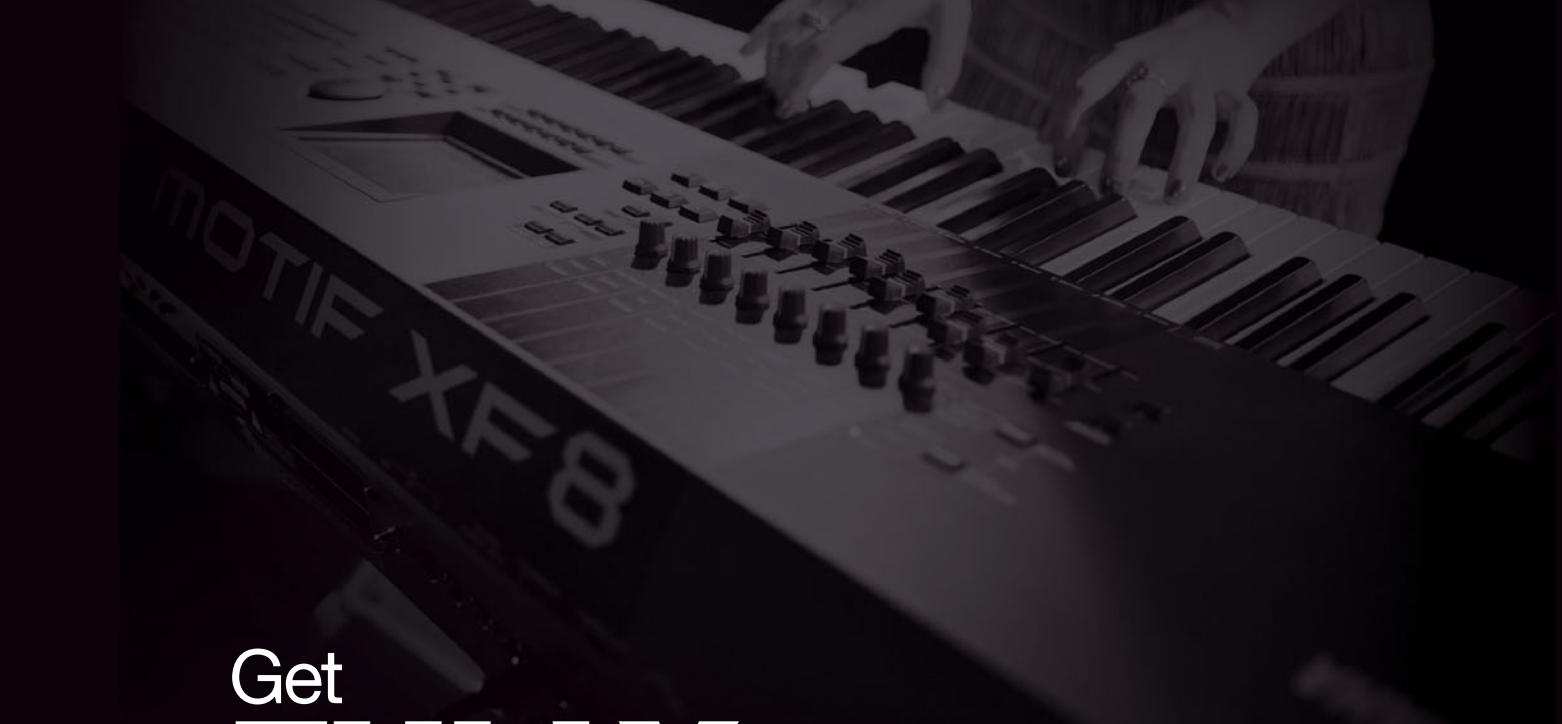

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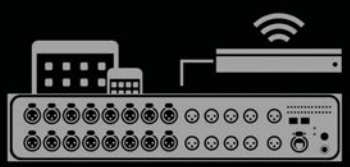

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